Indo-US
Financial Institutions
Reform and Expansion Project -
Debt Market Component
FIRE(D)

Project Notes

Note No. 20
November
1999

Developing a Municipal Credit Rating System in India

Since the city of Ahmedabad received India's first municipal credit rating in February, 1996, over 30 cities are following suit. While the rating is a key element in accessing capital markets, these ratings have also come to be recognized as important indicators of urban competitiveness. Throughout this process, the FIRE(D) Project has been working to facilitate the development of a municipal credit rating system in India, supporting both cities and rating agencies as they move forward. This Project Note describes the rating methodology developed by Credit Rating Information Services of India, Ltd. (CRISIL) and discusses ratings of the Ahmedabad and Vijayawada Municipal Corporations.

In 1995, the Ahmedabad Municipal Corporation (AMC) took the ground-breaking step of requesting a credit rating from CRISIL. The rating exercise, however, had never been performed for a municipality. CRISIL, with support from the FIRE(D) Project, worked to develop a methodology based on careful study of urban local bodies in India and international experience in the rating of municipal bonds.

Since then, CRISIL's rating exercise has evolved to focus on six major areas relative to the municipality's profile and existing operations; its financial and managerial performance; and the specific project for which it intends to borrow funds.

To further seed the development of a municipal credit rating system, the National Institute of Urban Affairs, a FIRE(D) Project Partner, took the step of contracting with Investment Information and Credit Rating Agency (ICRA) to develop a credit rating methodology and apply it to three agencies.

Over thirty cities have now turned to CRISIL, ICRA and Credit Analysis and Research, Limited (CARE), India's other leading rating agency, to request credit ratings. In addition, the states of Andhra Pradesh and Kerala are considering plans to have their major cities rated.

A credit rating is a key element of the pre-sale stage of a municipal bond issue, for it indicates the risk level associated with an issuer's ability to repay debt. Accessing capital markets, though, requires projects developed in commercially viable formats with adequate attention given to completion of projects within a specified time and cost. This, in turn, requires considerable investment in project development, with intensive technical assistance, supported by documentation and dissemination of experiences to maximize benefits.

A credit rating has also come to be regarded as a solid indicator of a city's performance and competitiveness. Andhra Pradesh and Kerala are considering plans to have their major cities rated not necessarily only for prospective bond issues, but for financial management and monitoring purposes.

Regardless of the purpose, once a rating has been issued, continued surveillance by the rating agency is important to identify changing conditions and trends in performance.

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Development

Introducing the Structured Debt Obligation

Municipal bonds are of two general types. *General obligation* (GO) bonds carry the full faith and credit of the issuing authority, and are appropriate for general services such as roads or street lighting, for which it is difficult to levy user charges. *Revenue bonds*, however, are tied to specified sources of revenue from the facilities or services which they finance. In the US, which has the most developed bond system in the world, the prevalence of revenue bonds has grown to over 70% in the past twenty years. The revenue bond structure in the US is backed by strong and credible covenants related to the revision of user charges, debt service coverage ratio and additional debt mobilization.

In India, the urban sector is plagued by a number of constraints, including a low taxes base; lack of credible credit histories; sectoral constraints related to cost recovery, especially for water and sewerage; and an image as a "social" sector which results in a lack of market rigor. Given these constraints, far reaching reforms have to be initiated before municipal bodies can attain the status of issuing project-based, non-recourse debt findings in the form of revenue bonds. In light of the lack of a track record and market image of municipal bodies, investors are unlikely to accept even the GO structure.

Within this context, the FIRE(D) Project, in association with CRISIL and IL&FS, worked to introduce Structured Debt Obligations (SDO) for municipal authorities, based on earlier experiences in the power and irrigation sectors. The primary benefit of an SDO is to raise the credit quality of the proposed instrument by earmarking reliable and predictable streams of revenue from specific tax and/or non-tax sources of the municipal body. These earmarked cash flows, which are the primary source of debt servicing, are kept separate from the issuer's general funds and are monitored by an independent trustee.

The SDO approach may enhance the rating of a debt instrument compared to the stand alone creditworthiness of the issuer, leading to easier access to the capital markets and potentially less costly financing. The cities of Ahmedabad, Vijayawada, Nashik, and most others which have requested ratings, have taken the SDO approach.

Credit Assessment of Municipal Bodies

CRISIL has identified six main areas of assessment.

1. Legal and Administrative Framework

Analysis focuses on the authority and responsibility of the municipality with regard to services, both obligatory and discretionary, taxation and borrowing of funds. This includes not only the city's powers of taxation, but specific measures that might have been taken to rationalize tax rates and add clarity to the system. In terms of borrowing, the manner in which sinking fund balances are transferred and monitored is also considered.

2. Economic Base of the Service Area

The economic base is analyzed to assess the potential for enhancing revenue-generation by the municipal body. Key factors include population and projected growth rates, levels of commercial and industrial activity, characteristics of the tax base, per capita income levels, and other indicators of economic activity such as the number of vehicles registered or requests for telephone connections.

Today these factors have limited use except in octroi-levying cities, because of the lack of a clear link between the economic and tax bases of these cities. It is expected in the future, however, that as cities move toward full cost recovery for services, the economic base will be an important indicator of users' ability and willingness to bear taxes and user charges.

3. Details of Municipal Finances

Analysis is based on a conventional framework reflecting a revenue account and a capital account. Receipts and expenditures for the past 5 years are assessed separately, and the accounting policy followed by it are considered key inputs in the analysis. The first phase of analysis assesses overall surplus or deficit of the revenue account. Both tax and non-tax revenue as well as state grants are reviewed. Recommendations of the relevant State Finance Commission are evaluated, if applicable.

The second phase examines service related expenditures—water supply, sewerage, education, public health, public safety, etc.—and head-wise expenditures—wages and salaries, operating expenses, repairs, maintenance and debt-servicing.

In cases where wages, salaries and debt-servicing constitute a majority of the costs, flexibility and the potential for expenditure control will be limited, impacting the credit rating adversely. Finally, a debt profile is constructed, considering sources, tenure, interest rates and repayment schedules for all outstanding debts of the municipality.

4. Existing Operations

This evaluation begins with a comparison of mandatory and discretionary services of the municipality, with more favorable light shed when there is emphasis on those services that are mandatory. Operating efficiency is evaluated with regard to core services as well as the organizational arrangements for delivery, existing infrastructure and level of revenue expenditure on these services. Efforts to curtail revenue expenditure are regarded favorably. Past trends in terms of capital outlays and receipts are used to indicate future trends in these areas, based on comparison of budgeted and actual outlays, projects undertaken, relative management performance, and service augmentation in relation to standard norms.

5. Management

The foundation of the financial health of a municipal body is its managerial capacity. This requires review of the organizational structure; administrative systems and procedures; project management skills of the management; the level of control exercised on expenditure; management of political forces; and initiative taken to enhance resources and improve collection mechanisms.

6. Project Analysis

The project proposed to be financed by bond proceeds has to be analyzed in detail. Analysis focuses on existing levels of service; improvements envisioned by the project; project cost; means of funding; and the effect of debt funding on the debt service coverage of the municipal body. There must be adequate comfort with the debt servicing capacity of the issuer. The proposed project will involve specific operations and maintenance expenditures which may be financed by existing cash-flows, and this can impact debt-servicing capacity.

Rating Structured Debt Obligations

SDOs are debt instruments secured by cashflows from a specific asset or source of revenue which are the primary means of servicing obligations to debt holders. In this way, an SDO is a credit enhancement mechanism. (See box at left.)

The linkage between the performance requirements of the issuer and the origination of the cashflows is one of the key considerations in assessing the extent to which the SDO would enhance the stand-alone credit quality of the issuer. The corresponding reduction in credit risk allows the issuer easier access to the capital market. CRISIL has considered two basic mechanisms—escrow accounts and guaranties—as credit enhancement mechanisms for specific debt issues.

In the case of Municipal Corporations, octroi and property tax revenues constitute steady sources of cashflow and can be segregated and deployed toward debt servicing. These pre-specified cashflows can be escrowed (collected in a designated account) and further utilized for the specific purpose of debt servicing. Such repayment structures are overseen by a trustee who ensures that the issuer adheres to pre-specified arrangements for collection and further allocation and all other terms of the SDO are satisfied.

With an SDO approach, a city may be able to draw greater confidence and interest in its bonds. For example, Ahmedabad's first credit rating—issued in 1996 for a general obligation bond issue of Rs. 1 billion ($25 million)—was A+, indicating adequate security for investors. After a re-examination of the project financial structure and introduction of credit enhancement, Infrastructure Leasing & Financial Services (IL&FS), in association with the FIRE(D) Project, worked with the AMC to shift from a general obligation to an SDO.

The AMC returned to CRISIL the following year and received an AA(so), indicating a high degree of security. When the bonds were finally issued in January of 1998, the public portion of the issue was oversubscribed by more than 15%.

The Vijayawada Municipal Corporation Rating

In November, 1997 CRISIL assigned a rating of A-(SO) to the Vijayawada Municipal Corporation (VMC) for a borrowing of Rs. 30 crore ($7.5 million), indicating an adequate degree of certainty regarding timely payment of financial obligations. In October, 1999, this rating was reaffirmed by CRISIL. To achieve this rating, the VMC pursued credit enhancements which rely on a pre-specified manner of borrowing over a four year period, for loans ranging in maturity from seven to thirty years.

Vijayawada has had a healthy financial track record, financing capital expenditures with revenue surpluses. The revenue account has had a consistent surplus since 1993-94, with a sharp increase in 1996-97. Tax arrears have decreased because the VMC is following a prudent practice of rapid settlement.

The city's outlook for property tax collections is positive given the fact that the government of Andhra Pradesh proposes to introduce an area based system of property tax assessment. The VMC has recently increased assessments and the number of properties eligible. Because the VMC has not revised tax rates since 1962, it is likely that the executive wing may find support for rate revisions, specifically for non-residential properties. Further revenues are expected to be gained primarily from commercial property development, and to a lesser extent from water supply services and lease payments from a solid waste disposal project.

Like the AMC, the VMC's credit rating was enhanced by the development of an escrow mechanism. But unlike the AMC, the VMC does not collect octroi; the majority of its revenues derive from property taxes and rental of commercial properties. Thus, the debt instrument proposed by CRISIL is a Special Tax Bond under which cash flows from gross property tax collections and commercial property development are to be collated and discharged to a designated escrow account. These funds will be monitored by a trustee until the point at which a given year's account is sufficient to cover the interest payment and principal repayment for that year.

To further enhance its credit, the VMC, in consultation with HUDCO, CRISIL and the FIRE(D) Project, proposes to adopt a senior-mezzanine debt structure under which Class I securities, municipal bonds, receive priority in terms of repayment, and Class II securities will be repaid only after meeting obligations on Class I. While the credit of the VMC is highly susceptible to the amount of debt or market borrowings mobilized, the advantage of such a structured borrowing programme is that it ensures linkages between the overall revenue receipts position and the debt-servicing liabilities of the VMC.

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This *Project Note* is based on the FIRE(D) Technical Report entitled "*Credit Assessment of Municipal Authorities and Other Functional Authorities and the Development of Appropriate Structured Arrangements for Debt*" produced by CRISIL's Infrastructure Ratings Group; and on "*Criteria for Rating of Municipal and Urban Local Bodies,*" also produced by CRISIL.

Indo-US Financial Institutions Reform and Expansion Project - Debt Market Component FIRE(D)

The mission of the Indo-US FIRE(D) Project is to institutionalize the delivery of commercially viable urban environmental infrastructure and services at the local, state and national levels. Since 1994, the Project has been working to support the development of such demonstration projects and the development of a sustainable urban infrastructure finance system. Now, the Project is pursuing this mission through:

- Expansion of the roles of the private sector, NGOs and CBOs in the development, delivery, operation and maintenance of urban environmental infrastructure;
- Increased efficiency in the operation and maintenance of existing water supply and sewerage systems;
- Strengthened financial management systems at the local level;
- Development of legal and regulatory frameworks at the state level;
- Continued implementation of the 74th Constitutional Amendment; and
- Capacity-building through the development of an Urban Management Training Network.

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Funded under USAID Contract
#386-C-00-99-00071-00

The *Project Notes* series is edited and produced by Laurie de Freese.
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